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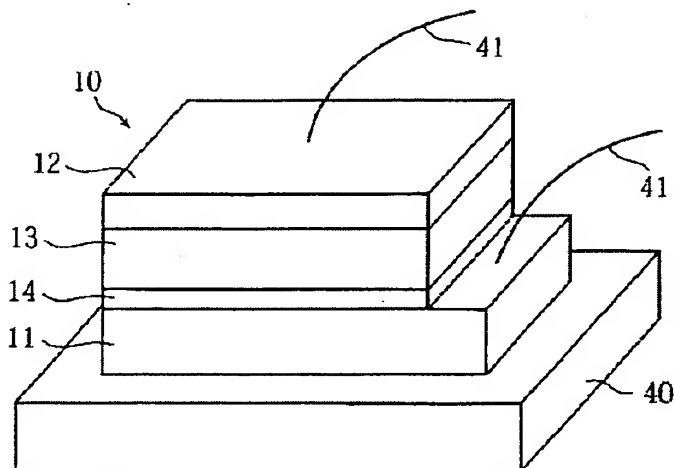
APPLICATION NUMBER : 2002086400

APPLICANT : ROHM CO LTD;

INVENTOR : SASABE HIROYUKI;

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TITLE : SWITCHING DEVICE AND METHOD OF
MANUFACTURING THE SAME



ABSTRACT : PROBLEM TO BE SOLVED: To provide a switching device which can be formed thinner than the conventional one and shows a reproducible switching characteristic, and also to provide a method of manufacturing the same.

SOLUTION: The switching device comprises a first electrode layer 11 and a second electrode layer 12, a switching layer 13 disposed between the first and second electrode layers, and an insulation layer 14 which is in contact with the switching layer 13 between the first electrode layer 11 and the switching layer 13. The switching layer 13 is turned from a high resistance state to a low resistance state by the application of voltage having a first threshold value or above in a first bias direction between the first and second electrode layers 11 and 12. When the applied voltage is lowered below the first threshold value after the change of state, the switching layer 13 still retains the low resistance state. The switching layer 13 is turned from the low resistance state to the high resistance state by the application of voltage having a second threshold value or above which is applied in a second bias direction opposite from the first one. When the applied voltage is lowered below the second threshold value after the change of state, the switching layer 13 still retains the high resistance state.

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